

N92-11052

# TRUST TDRSS Resource User Support Tool

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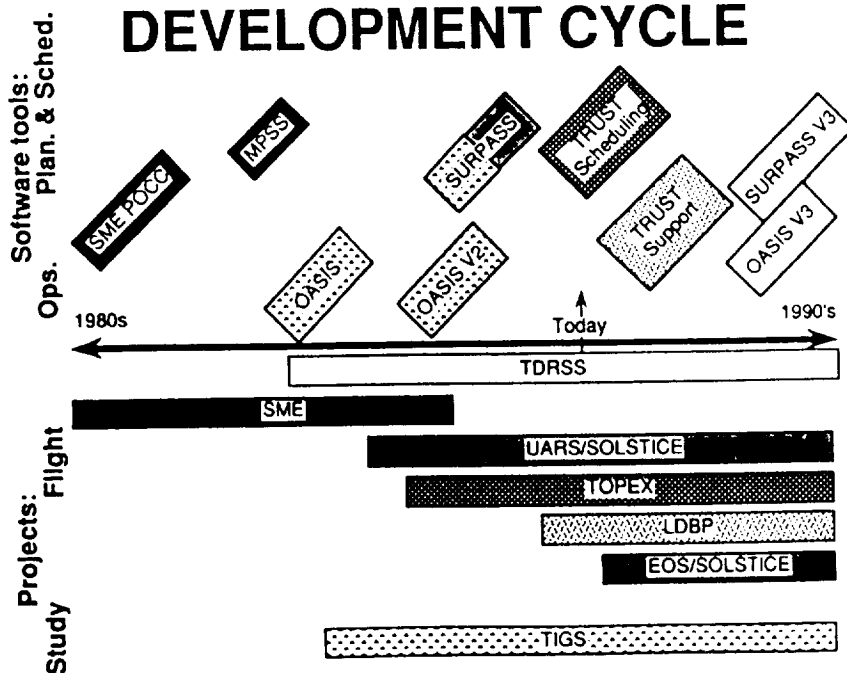
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## TRUST DEVELOPMENT CYCLE



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## TRUST DEVELOPMENT

### Flight Projects

- Solar Mesosphere Explorer (SME): Realtime Control and Monitoring; Science Planning and Scheduling; TDRSS Scheduling and Ground Control
- Solar/Stellar Irradiance Comparison Experiment (SOLSTICE): Science and Mission Planning; Instrument Monitoring, Command and Control
- Ocean Topography Experiment (TOPEX - JPL): LASP Involvement Includes TDRSS Scheduling
- Long Duration Balloon Project (LDBP - GSFC/WFF): LASP Involvement Includes TDRSS Scheduling and Ground Control

### Study Projects

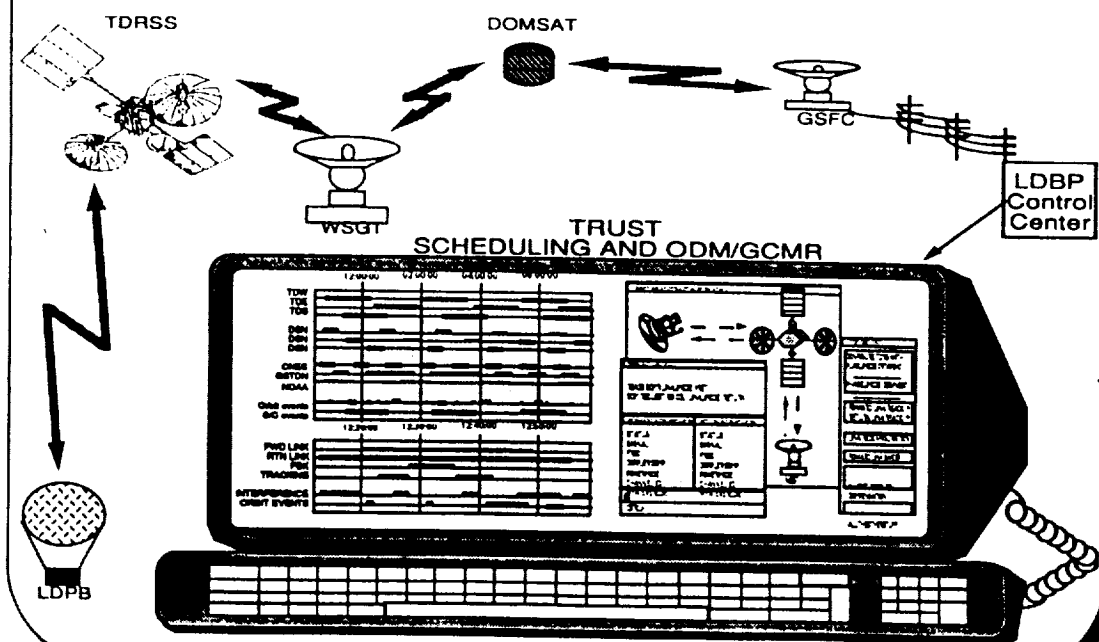
- Telescience Implications on Ground Systems, Scheduling Architectures Concepts and Networks (TIGS SCAN Testbed - GSFC): LASP Involvement Includes Planning and Scheduling; Instrument Operations

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## The TRUST System

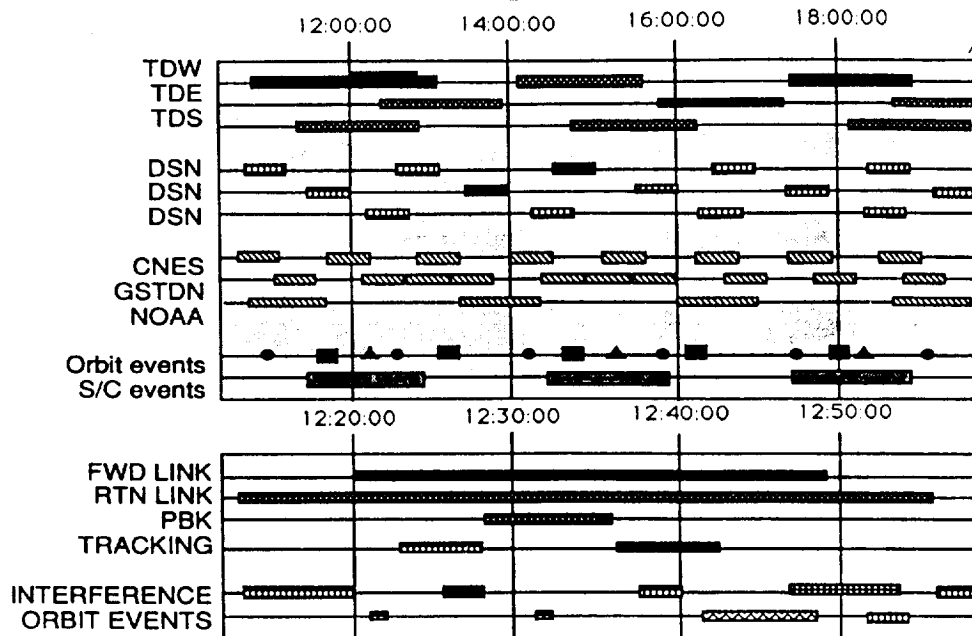


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## Scheduling Window

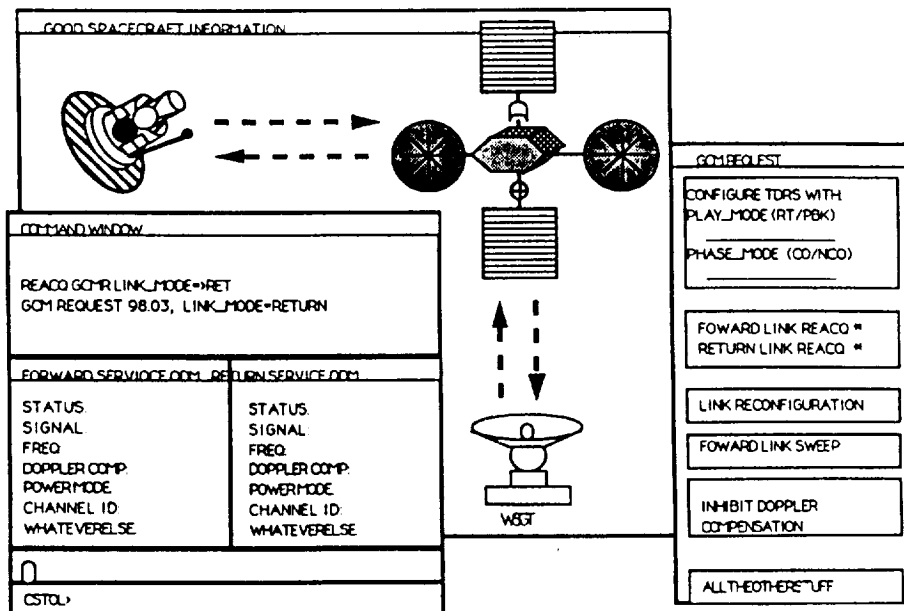


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## ODM/GCMR Window



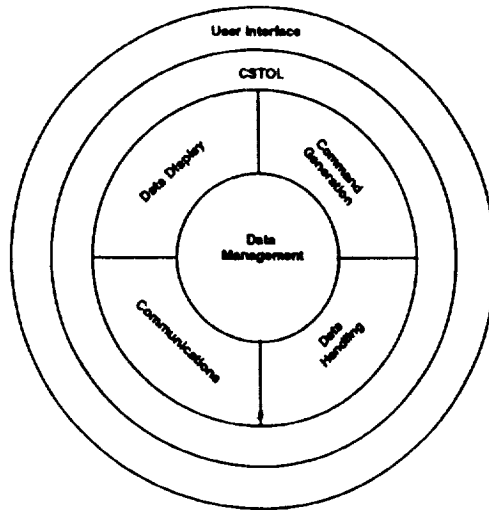
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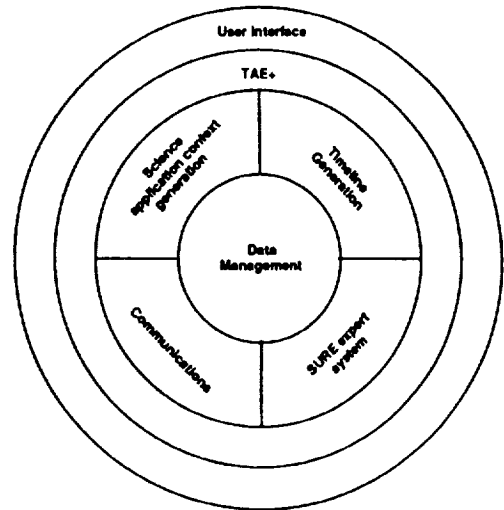
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# TRUST Architecture

## OASIS



## SURPASS

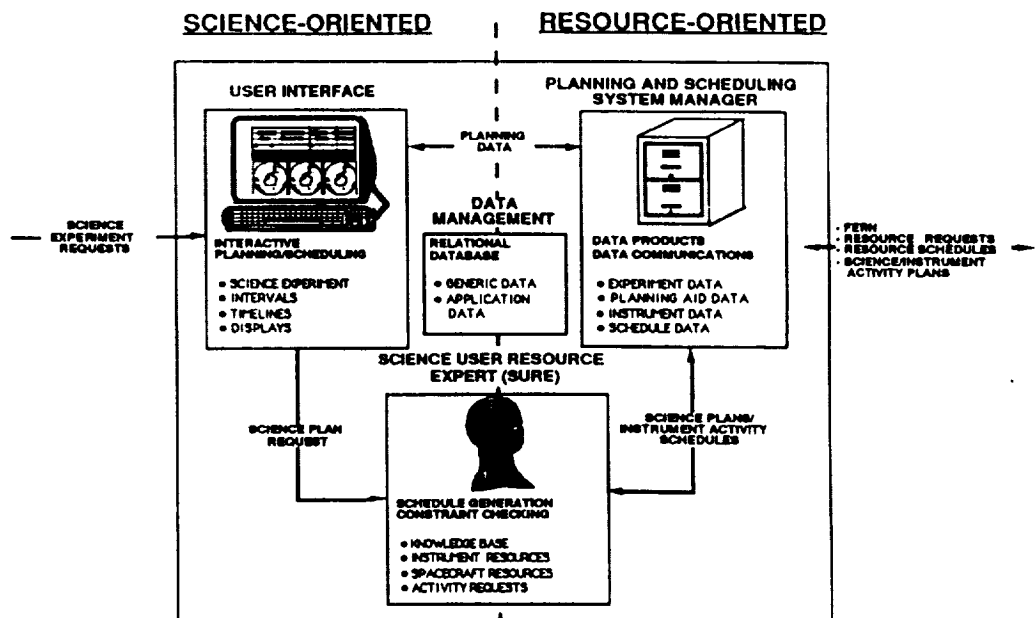


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# SURPASS



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## **SUMMARY**

- **Generic TDRSS Scheduling with use of the Expert System**
- **Automatic Re-scheduling, for conflict resolution, with Expert System**
- **ODM/QDM Processing and Constraint Checking**
- **Trend analysis of TDRSS link, as an aid to TDRSS Operations**
- **Capable of formatting schedule messages, to allow scheduling of multiple networks (TDRSS, DSN, etc.)**
- **Receives and processes Spacecraft PSAT & Orbital Information**
- **Capable of handling several communications protocols (NASCOM, SPAN/DECNET, TCPIP, etc.)**
- **Supplies planner/scheduler/operator a view of possible activities, in the Scientific/Mission Context (X Window Based)**
- **Menu driven GCMR, Schedule Requests & Processing, if desired**
- **Multi Spacecraft Capability**
- **Written Entirely in Ada**

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